SONIA OTERO

Work Address
U.S. Dept. Of Commerce
NOAA/AOML/HRD
4301 Rickenbacker Causeway
Miami, FL 33149
Telephone: (305) 361-4419
e-mail: sonia.otero@noaa.gov

Home Address
501 SW 10 Street, apt. 7
Miami, FL 33130
Telephone: (305) 856-9096

EDUCATION

Master of Science in Computer Science, August 2002
Florida International University, Miami, Florida

Bachelor of Science in Computer Science with a minor in Physics and a minor in Mathematics, April 1996
Florida International University, Miami, Florida

Associate of Arts, May 1993
Miami-Dade Community College, Miami, Florida

WORK EXPERIENCE

July 1999 - present

Software engineer/System Administrator
Cooperative Institute for Marine and Atmospheric Studies (CIMAS/University of Miami)
working for United States Department of Commerce,
National Oceanic and Atmospheric Administration (NOAA),
Atlantic Oceanographic and Meteorological Laboratory (AOML),
Hurricane Research Division (HRD)

Chief Java software developer of an automated distributed real-time hurricane wind analysis system (H*Wind). Build and thoroughly test a full-featured Java application for meteorological data quality control, meeting evolving scientists' requirements.

Extensive interaction with Oracle 9i database via JDBC and SQLJ, coordinating real-time data collection, meaningful application data retrieval, and proper storage of analysis results.

Enable remote invocation of FORTRAN programs responsible for the actual wind analysis over the Internet (Distributed Objects). Automation of analyses output and annotation on the Web.

Object-oriented analysis, design and documentation using UML (Unified Modeling Language).

Collaboration on preparation and presentations of main funded proposals.

System administration of Solaris and Linux machines: Oracle database installations/upgrades, purchases, maintenance and installation of operating system, backups, software management, security issues, etc.

January 1995 - July 1999

UNIX Systems Administrator
contracted for NOAA/AOML, Computer Services and Network Division

Responsibilities include but not limited to:
- Installation and maintenance of Solaris 2.x for Sparc and x86 platforms., SunOs 4.1.x, Ultrix 4.x, HPUX 9.x, HP-UX 10.x, NextStep 3.3.
- Setup of Network Information Systems (NIS/YP) and Network File System (NFS).
- Setup of Domain Name Service (DNS), Sendmail, Web server, FTP server, News server.
- Maintenance of TIS Gauntlet firewall.
- Setup and maintenance of Unix backups/restores.
- Setup and maintenance of a Cisco 4500 router.
- Installation plus management of FLEXlm network licenses of several commercial products: Matlab, IDL, S-Plus, WordPerfect.
- Gnu code installation including but not limited to gcc, g++, tex, latex, ghostview, ghostscript, bison, emacs, perl, xv, sed, gawk, X11. In general, any freeware/shareware software.
- Management and integration of X-windows terminals produced by HDS, HP, and NCD.
- UNIX user support and troubleshooting.
- Training courses on "PowerHub" from Fore Systems, and “Introduction to Cisco Routers" from Cisco.

March 1991 - December 1994
ARS, Inc. (formerly Compuhelp, Inc.)
Accounting and bookeeping: General Ledger, Accounts Receivable, Accounts Payable, Bank Reconciliation, etc.

October 1991 - March 1994
ARS, Inc. (formerly Compuhelp, Inc.)
Documentation editor of software manuals.

AWARDS

From NOAA High Performance Computing and Communications (HPCC):
- "Best Java Implementation" team award for the H*Wind application, at the NOAATech 2000 conference, October 1999.
- "Best Technology Transfer to Operations" team award for the H*Wind application, at the NOAATech 2002 conference, October 2001.

From Miami-Dade Community College, Kendall Campus:
- 1993 Academic award for Outstanding Student in Computer and Information Science
- 1993 Academic award for Outstanding Student in Physics

CERTIFICATIONS

GIAC (Global Information Assurance Certification) Security Essentials Certification, sponsored by SANS (SysAdmin, Audit, Networking, Security) Institute, March 2002.

PUBLICATIONS

‣ Otero, Sonia, 2002: A Real-time Distributed Analysis Automation for Hurricane Surface Wind Observations, Master Thesis, School of Computer Science, Florida International University, Miami, FL.

‣ Otero, S., N. Morisseau-Leroy, N. Carrasco, and M.D. Powell, 2000: A distributed real-time hurricane wind analysis system, Preprints, 24th Conference on Hurricanes and Tropical Meteorology, 197-198.

PERSONAL

Languages: Fluent in Spanish and Catalan. Intermediate knowledge of French and Esperanto.